

GenCore version 5.1.6-  
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OM protein - protein search, using sw model

Run on: August 31, 2004, 19:53:21 ; Search time 32 Seconds  
(without alignments)  
296.849 Million cell updates/sec

Title: US-09-589-777C-2  
Perfect score: 968  
Sequence: 1 HTHQDFQPVHLVALNTPLS.....CHNSYIVLCIENSFWMSFSX 184

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents AA.\*  
1: /cgn2\_6/ptodata/2/iaa/5A\_COMB.pep.\*  
2: /cgn2\_6/ptodata/2/iaa/5B\_COMB.pep.\*  
3: /cgn2\_6/ptodata/2/iaa/6A\_COMB.pep.\*  
4: /cgn2\_6/ptodata/2/iaa/6B\_COMB.pep.\*  
5: /cgn2\_6/ptodata/2/iaa/PCTUS\_COMB.pep.\*  
6: /cgn2\_6/ptodata/2/iaa/backfiles.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	968	100.0	191	4	US-09-561-500-13
2	968	100.0	191	4	US-09-561-108-13
3	968	100.0	191	4	US-09-561-526-13
4	968	100.0	191	4	US-09-561-499-13
5	968	100.0	191	4	US-09-998-831-13
6	965	99.7	195	1	US-08-159-784-2
7	916	94.6	185	3	US-08-985-526-36
8	840	86.8	182	4	US-09-561-500-14
9	840	86.8	182	4	US-09-561-108-14
10	840	86.8	182	4	US-09-315-689-3
11	840	86.8	182	4	US-09-561-526-14
12	840	86.8	182	4	US-09-561-499-14
13	840	86.8	182	4	US-09-998-831-14
14	840	86.8	183	3	US-09-206-059-2
15	822	84.9	178	4	US-09-315-689-5
16	550	56.8	191	1	US-08-159-784-3
17	273.5	28.3	124	4	US-09-231-077D-10
18	198	20.5	123	4	US-09-231-077D-11
19	150	15.5	35	3	US-09-046-985-2
20	150	15.5	35	3	US-09-474-743-2
21	108	11.2	20	2	US-08-740-168A-1
22	108	11.2	20	3	US-09-349-429-1
23	108	11.2	20	4	US-09-315-689-1
24	108	11.2	20	4	US-09-174-282-1
25	108	11.2	20	4	US-09-154-302-1
26	101	10.4	16	3	US-09-385-442-32
27	101	10.4	22	3	US-09-046-985-7

28 101 10.4 22 3 US-09-474-743-7 Sequence 7, Appli  
29 82 8.5 15 4 US-09-231-077D-12 Sequence 12, Appli  
30 79 8.2 682 4 US-09-489-039A-10595 Sequence 10595, A  
31 79 8.2 1112 4 US-09-717-364A-27 Sequence 27, Appli  
32 77 8.0 439 4 US-09-252-991A-19623 Sequence 19623, A  
33 76.5 7.9 1050 4 US-09-428-711A-16 Sequence 16, Appli  
34 76 7.9 506 4 US-09-252-991A-18165 Sequence 18165, A  
35 75 7.7 190 3 US-09-046-985-15 Sequence 15, Appli  
36 75 7.7 190 3 US-09-474-743-15 Sequence 15, Appli  
37 75 7.7 587 2 US-08-871-266B-18 Sequence 18, Appli  
38 75 7.7 587 2 US-09-018-864A-18 Sequence 18, Appli  
39 75 7.7 587 3 US-08-871-267B-24 Sequence 24, Appli  
40 75 7.7 587 3 US-09-618-419-24 Sequence 24, Appli  
41 74.5 7.7 577 2 US-08-756-317-13 Sequence 13, Appli  
42 74 7.6 15 4 US-09-231-077D-13 Sequence 13, Appli  
43 74 7.6 1646 4 US-09-252-991A-22312 Sequence 22312, A  
44 74 7.6 6396 4 US-09-410-551B-72 Sequence 72, Appli  
45 73.5 7.6 443 4 US-09-252-991A-26460 Sequence 26460, A

## ALIGNMENTS

RESULT 1  
US-09-561-500-13  
; Sequence 13, Application US/09561500  
; Patent No. 6342219  
; GENERAL INFORMATION:  
; APPLICANT: Phillip E. Thorpe  
; APPLICANT: Rolf A. Brekken  
; TITLE OF INVENTION: ANTIBODY COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF  
; FILE REFERENCE: 4001.002500  
; CURRENT APPLICATION NUMBER: US/09/561,500  
; CURRENT FILING DATE: 2000-04-28  
; PRIOR APPLICATION NUMBER: 60/131,432  
; PRIOR FILING DATE: 1999-04-28  
; NUMBER OF SEQ ID NOS: 44  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 13  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-09-561-500-13

Query Match 100.0%; Score 968; DB 4; Length 191;  
Best Local Similarity 100.0%; Pred No. 3.8e-112; Indels 0; Gaps 0;  
Matches 184; Conservative 0; Mismatches 0;  
Qy 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQOARAVGLSGTTPRALSSRLQDLYSI 60  
Db 8 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQOARAVGLSGTTPRALSSRLQDLYSI 67  
Qy 61 VRADRGSPVIVNLKDEVLSFSGQCLQPGARIFSGDGRDVLRHFAWPCKSYW 120  
Db 68 VRADRGSPVIVNLKDEVLSFSGQCLQPGARIFSGDGRDVLRHFAWPCKSYW 127  
Qy 121 HGSDDPSGRRLMESYCYETWTETTTGATGQASSLLSGRLLEQKKAASCHNSYIVLCIENSFMT 180  
Db 128 HGSDDPSGRRLMESYCYETWTETTTGATGQASSLLSGRLLEQKKAASCHNSYIVLCIENSFMT 187  
Qy 181 SFSK 184  
Db 188 SFSK 191

RESULT 2  
US-09-561-108-13  
; Sequence 13, Application US/09561108  
; Patent No. 6342221  
; GENERAL INFORMATION:  
; APPLICANT: Phillip E. Thorpe

APPLICANT: Rolf A. Brekken  
TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF  
FILE REFERENCE: 4001.002584  
CURRENT APPLICATION NUMBER: US/09/561,108  
CURRENT FILING DATE: 2000-04-28  
PRIOR APPLICATION NUMBER: 60/131,432  
PRIOR FILING DATE: 1999-04-28  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 13  
LENGTH: 191  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-09-561-108-13

Query Match 100.0%; Score 968; DB 4; Length 191;  
Best Local Similarity 100.0%; Pred. No. 3.8e-112;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 60  
DB 8 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 67

QY 61 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 120  
DB 68 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 127

QY 121 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 128 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

QY 181 SFSK 184  
DB 188 SFSK 191

RESULT 3  
US-09-561-526-13  
Sequence 13, Application US/09561526  
Patent No. 6416758  
GENERAL INFORMATION:  
APPLICANT: Philip E. Thorpe  
APPLICANT: Rolf A. Brekken  
TITLE OF INVENTION: ANTIBODY CONJUGATE KITS FOR SELECTIVELY INHIBITING VEGF  
FILE REFERENCE: 4001.002586  
CURRENT APPLICATION NUMBER: US/09/561,526  
CURRENT FILING DATE: 2000-04-28  
PRIOR APPLICATION NUMBER: 60/131,432  
PRIOR FILING DATE: 1999-04-28  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 13  
LENGTH: 191  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-09-561-526-13

Query Match 100.0%; Score 968; DB 4; Length 191;  
Best Local Similarity 100.0%; Pred. No. 3.8e-112;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 60  
DB 8 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 67

QY 61 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 120  
DB 68 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 127

QY 121 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 128 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

QY 181 SFSK 184  
DB 188 SFSK 191

RESULT 4  
US-09-561-499-13  
Sequence 13, Application US/09561499  
Patent No. 6524583  
GENERAL INFORMATION:  
APPLICANT: Philip E. Thorpe  
APPLICANT: Rolf A. Brekken  
TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF  
FILE REFERENCE: 4001.002582  
CURRENT APPLICATION NUMBER: US/09/561,499  
CURRENT FILING DATE: 2000-04-28  
PRIOR APPLICATION NUMBER: 60/131,432  
PRIOR FILING DATE: 1999-04-28  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 13  
LENGTH: 191  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-09-561-499-13

Query Match 100.0%; Score 968; DB 4; Length 191;  
Best Local Similarity 100.0%; Pred. No. 3.8e-112;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 60  
DB 8 HTHQDFQVHLVALNTPLSGMRGIRGADFCQCFQARAVGLSGTFRFLSSRLQDLYSI 67

QY 61 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 120  
DB 68 VRRADRGSPVIVNLKDEVLSFSDSGQQLQPCARIFSDGRDVLHRHPAPQKSVW 127

QY 121 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 128 HGDPSGRRLMESYCEWTWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

QY 181 SFSK 184  
DB 188 SFSK 191

RESULT 5  
US-09-998-831-13  
Sequence 13, Application US/09998831  
Patent No. 6676941  
GENERAL INFORMATION:  
APPLICANT: Philip E. Thorpe  
APPLICANT: Rolf A. Brekken  
TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY  
TITLE OF INVENTION: INHIBITING VEGF  
FILE REFERENCE: 4001.002584  
CURRENT APPLICATION NUMBER: US/09/998,831  
CURRENT FILING DATE: 2001-11-30  
PRIOR APPLICATION NUMBER: 09/561,108  
PRIOR FILING DATE: 2000-04-28  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 13  
LENGTH: 191  
TYPE: PRT  
ORGANISM: Artificial Sequence

FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
 US-09-998-831-13

Query Match 100.0%; Score 968; DB 4; Length 191;  
 Best Local Similarity 100.0%; Pred. No. 3.8e-112;  
 Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60  
 DB 8 HTHQDFQPVHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 67  
 QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 120  
 DB 68 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 127  
 QY 121 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 180  
 DB 128 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 187  
 QY 181 SFSK 184  
 DB 188 SFSK 191

RESULT 6  
 US-08-159-784-2  
 ; Sequence 2, Application US/08159784  
 ; Patent No. 5643783  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Bjorn R. Olsen  
 ; TITLE OF INVENTION: NOVEL COLLAGEN AND USES THEREOF  
 ; NUMBER OF SEQUENCES: 9  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Fish & Richardson  
 ; STREET: 225 Franklin Street  
 ; CITY: Boston  
 ; STATE: Massachusetts  
 ; COUNTRY: U.S.A.  
 ; ZIP: 02110-2804

COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: 3.5" Diskette, 1.44 Mb  
 ; COMPUTER: IBM PS/2 Model 50Z or 55SX  
 ; OPERATING SYSTEM: MS-DOS (Version 5.0)  
 ; SOFTWARE: WordPerfect (Version 5.1)  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/159,784  
 ; FILING DATE: December 1, 1993  
 ; CLASSIFICATION: 530  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER:  
 ; FILING DATE:  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: John F. Freeman  
 ; REGISTRATION NUMBER: 29,066  
 ; REFERENCE/DOCKET NUMBER: 00246/170001  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (617) 542-5070  
 ; TELEFAX: (617) 542-8906  
 ; TELEX: 200154  
 ; INFORMATION FOR SEQ ID NO: 2:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 195  
 ; TYPE: amino acid  
 ; STRANDEDNESS: N/A  
 ; TOPOLOGY: N/A  
 US-08-159-784-2

Query Match 99.7%; Score 965; DB 1; Length 195;  
 Best Local Similarity 99.5%; Pred. No. 9.2e-112;  
 Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 HTHQDFQPVHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

DB 12 HTHQDFQPVHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 71  
 QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 120  
 DB 72 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 131  
 QY 121 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 180  
 DB 132 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 191  
 QY 181 SFSK 184  
 DB 192 SFSK 195

RESULT 7  
 US-08-985-526-36  
 ; Sequence 36, Application US/08985526  
 ; Patent No. 6080728  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Mixson, James A  
 ; TITLE OF INVENTION: CARRIER: DNA COMPLEXES CONTAINING DNA  
 ; TITLE OF INVENTION: ENCODING ANTI-ANGIOGENIC PEPTIDES AND THEIR USE IN GENE  
 ; TITLE OF INVENTION: THERAPY  
 ; NUMBER OF SEQUENCES: 43  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Connolly, Bove, Lodge, & Hutz  
 ; STREET: 1220 Market Street, P.O. Box 2207  
 ; CITY: Wilmington  
 ; STATE: Delaware  
 ; COUNTRY: U.S.A.  
 ; ZIP: 19899  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: Patent In Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/985,526  
 ; FILING DATE:  
 ; CLASSIFICATION:  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/608,845  
 ; FILING DATE: 16-JUL-1996  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: McMorow Jr., Robert G  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (302) 658-9141  
 ; TELEFAX: (302) 658-5613  
 ; INFORMATION FOR SEQ ID NO: 36:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 185 amino acids  
 ; TYPE: amino acid  
 ; TOPOLOGY: linear  
 US-08-985-526-36

Query Match 94.6%; Score 916; DB 3; Length 185;  
 Best Local Similarity 95.1%; Pred. No. 1.1e-105;  
 Matches 176; Conservative 5; Mismatches 2; Indels 2; Gaps 2;  
 QY 1 HTHQDFQPVHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60  
 DB 2 HTHQDFQPVHLVALNTPLSGMRGIRGADFCFNNAR-VGLSGTFFRAFLSSRLQDLYSI 60  
 QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 119  
 DB 61 VRRADRGSPVIVNLKDEVLSFSGQQLPGARIFSDGRDVLHRHPAPQKSV 120  
 QY 120 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 179  
 DB 121 HGSPPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEOKAASCHNSYIVLCIENSFMT 180



; PRIOR APPLICATION NUMBER: 60/131,432
 ; PRIOR FILING DATE: 1999-04-28
 ; NUMBER OF SEQ ID NOS: 44
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 14
 ; LENGTH: 182
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
 ; OTHER INFORMATION: PEPTIDE
 US-09-561-526-14

 Query Match 86.8%; Score 840; DB 4; Length 182;
 Best Local Similarity 85.6%; Pred. No. 2.9e-96;
 Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

 QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTTFRAFLSSRLQDLYSI 60
 Db 1 HSHRDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLAGTTFRAFLSSRLQDLYSI 60

 QY 61 VRADRGSPVIVNLKDEVLSPSWDSLFSGSGQLOPGARIFSDGDRVLRHPAPQKSVW 120
 Db 61 VRADRAAVPIVNLKDELLFSPWEALFSGSEGPKPGARIFSDGKDVLRHPTWPQKSVW 120

 QY 121 HGSDPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
 Db 121 HGSDPNGRRLTESYCETWRTTAPSATGQASSLLGRLLGQAASCHHAYIVLCIENSFMT 180

 QY 181 S 181
 Db 181 A 181

 RESULT 12
 US-09-561-499-14
 ; Sequence 14, Application US/09561499
 ; Patent No. 6524583
 ; GENERAL INFORMATION:
 ; APPLICANT: Philip E. Thorpe
 ; APPLICANT: Rolf A. Brekken
 ; TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
 ; FILE REFERENCE: 4001.002582
 ; CURRENT APPLICATION NUMBER: US/09/561,499
 ; CURRENT FILING DATE: 2000-04-28
 ; PRIOR APPLICATION NUMBER: 60/131,432
 ; PRIOR FILING DATE: 1999-04-28
 ; NUMBER OF SEQ ID NOS: 44
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 14
 ; LENGTH: 182
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
 ; OTHER INFORMATION: PEPTIDE
 US-09-561-499-14

 Query Match 86.8%; Score 840; DB 4; Length 182;
 Best Local Similarity 85.6%; Pred. No. 2.9e-96;
 Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

 QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTTFRAFLSSRLQDLYSI 60
 Db 1 HSHRDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLAGTTFRAFLSSRLQDLYSI 60

 QY 61 VRADRGSPVIVNLKDEVLSPSWDSLFSGSGQLOPGARIFSDGDRVLRHPAPQKSVW 120
 Db 61 VRADRAAVPIVNLKDELLFSPWEALFSGSEGPKPGARIFSDGKDVLRHPTWPQKSVW 120

 QY 121 HGSDPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
 Db 121 HGSDPNGRRLTESYCETWRTTAPSATGQASSLLGRLLGQAASCHHAYIVLCIENSFMT 180

 QY 181 S 181
 Db 181 A 181

QY 181 S 181
 Db 181 A 181

 RESULT 13
 US-09-998-831-14
 ; Sequence 14, Application US/09998831
 ; Patent No. 6676941
 ; GENERAL INFORMATION:
 ; APPLICANT: Philip E. Thorpe
 ; APPLICANT: Rolf A. Brekken
 ; TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY
 ; TITLE OF INVENTION: INHIBITING VEGF
 ; FILE REFERENCE: 4001.002584
 ; CURRENT APPLICATION NUMBER: US/09/998,831
 ; CURRENT FILING DATE: 2001-11-30
 ; PRIOR APPLICATION NUMBER: 09/561,108
 ; PRIOR FILING DATE: 2000-04-28
 ; NUMBER OF SEQ ID NOS: 44
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 14
 ; LENGTH: 182
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
 ; OTHER INFORMATION: PEPTIDE
 US-09-998-831-14

 Query Match 86.8%; Score 840; DB 4; Length 182;
 Best Local Similarity 85.6%; Pred. No. 2.9e-96;
 Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

 QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTTFRAFLSSRLQDLYSI 60
 Db 1 HSHRDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLAGTTFRAFLSSRLQDLYSI 60

 QY 61 VRADRGSPVIVNLKDEVLSPSWDSLFSGSGQLOPGARIFSDGDRVLRHPAPQKSVW 120
 Db 61 VRADRAAVPIVNLKDELLFSPWEALFSGSEGPKPGARIFSDGKDVLRHPTWPQKSVW 120

 QY 121 HGSDPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
 Db 121 HGSDPNGRRLTESYCETWRTTAPSATGQASSLLGRLLGQAASCHHAYIVLCIENSFMT 180

 QY 181 S 181
 Db 181 A 181

 RESULT 14
 US-09-206-059-2
 ; Sequence 2, Application US/09206059
 ; Patent No. 6201104
 ; GENERAL INFORMATION:
 ; APPLICANT: MacDonal, Nicholas
 ; APPLICANT: Sim, Kim Lee
 ; TITLE OF INVENTION: Angiogenesis-Inhibiting Protein Binding Peptides and
 ; TITLE OF INVENTION: Proteins and Methods of Use
 ; FILE REFERENCE: 05213-0370
 ; CURRENT APPLICATION NUMBER: US/09/206,059
 ; CURRENT FILING DATE: 1998-12-04
 ; NUMBER OF SEQ ID NOS: 80
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 2
 ; LENGTH: 183
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; OTHER INFORMATION:
 US-09-206-059-2

 Query Match 86.8%; Score 840; DB 3; Length 183;



GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 31, 2004, 19:58:01 ; Search time 125 Seconds  
(without alignments)  
463.110 Million cell updates/sec

Title: US-09-589-777C-2  
Perfect score: 968  
Sequence: 1 HTHQDFQVHLVALNTPLS.....CHNSYIVLCIENSPMTFSK 184

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1297172 seqs, 314612898 residues

Total number of hits satisfying chosen parameters: 1297172

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

- Database : Published Applications\_AA.\*
- 1: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep.\*
  - 2: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEW\_PUB.pep.\*
  - 3: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW\_PUB.pep.\*
  - 4: /cgn2\_6/ptodata/2/pubpaa/US06\_PUBCOMB.pep.\*
  - 5: /cgn2\_6/ptodata/2/pubpaa/US07\_NEW\_PUB.pep.\*
  - 6: /cgn2\_6/ptodata/2/pubpaa/PCTUS\_PUBCOMB.pep.\*
  - 7: /cgn2\_6/ptodata/2/pubpaa/US08\_NEW\_PUB.pep.\*
  - 8: /cgn2\_6/ptodata/2/pubpaa/US08\_PUBCOMB.pep.\*
  - 9: /cgn2\_6/ptodata/2/pubpaa/US09A\_PUBCOMB.pep.\*
  - 10: /cgn2\_6/ptodata/2/pubpaa/US09B\_PUBCOMB.pep.\*
  - 11: /cgn2\_6/ptodata/2/pubpaa/US09C\_PUBCOMB.pep.\*
  - 12: /cgn2\_6/ptodata/2/pubpaa/US09\_NEW\_PUB.pep.\*
  - 13: /cgn2\_6/ptodata/2/pubpaa/US10A\_PUBCOMB.pep.\*
  - 14: /cgn2\_6/ptodata/2/pubpaa/US10B\_PUBCOMB.pep.\*
  - 15: /cgn2\_6/ptodata/2/pubpaa/US10C\_PUBCOMB.pep.\*
  - 16: /cgn2\_6/ptodata/2/pubpaa/US10\_NEW\_PUB.pep.\*
  - 17: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.pep.\*
  - 18: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	968	100.0	191	9	US-09-998-831-13
2	968	100.0	191	14	US-10-373-561-13
3	968	100.0	207	13	US-10-080-797-3
4	965	99.7	184	14	US-10-131-241-46
5	965	99.7	184	14	US-10-292-418-18
6	965	99.7	207	12	US-09-373-938-2
7	965	99.7	207	14	US-10-422-934-71
8	916	94.6	185	13	US-10-036-869-36
9	841	86.9	184	14	US-10-131-241-49
10	841	86.9	184	14	US-10-292-418-35
11	840	86.8	181	14	US-10-131-241-55
12	840	86.8	182	9	US-09-998-831-14
13	840	86.8	182	14	US-10-131-241-54
14	840	86.8	182	14	US-10-042-347-3
15	840	86.8	182	14	US-10-373-561-14

16	840	86.8	183	9	US-09-973-676-2	Sequence 2, Appli
17	840	86.8	183	12	US-09-978-531-1	Sequence 1, Appli
18	840	86.8	183	12	US-10-133-872B-11	Sequence 11, Appl
19	840	86.8	183	13	US-10-080-797-1	Sequence 1, Appli
20	840	86.8	183	14	US-10-131-241-52	Sequence 52, Appl
21	840	86.8	183	14	US-10-292-418-4	Sequence 4, Appli
22	840	86.8	183	16	US-10-607-501-2	Sequence 2, Appli
23	840	86.8	184	16	US-10-449-609-4	Sequence 4, Appli
24	840	86.8	208	12	US-09-373-938-5	Sequence 5, Appli
25	840	86.8	385	16	US-10-449-609-6	Sequence 6, Appli
26	840	86.8	682	15	US-10-264-049-3010	Sequence 3010, Ap
27	840	86.8	684	10	US-09-961-403-5	Sequence 5, Appli
28	840	86.8	1516	14	US-10-060-036-166	Sequence 166, App
29	840	86.8	1516	15	US-10-431-642-3	Sequence 3, Appli
30	839	86.7	180	14	US-10-131-241-56	Sequence 56, Appl
31	831	85.8	184	10	US-09-938-391-4	Sequence 4, Appli
32	831	85.8	230	10	US-09-938-391-2	Sequence 2, Appli
33	828	85.5	180	14	US-10-131-241-47	Sequence 47, Appl
34	823	85.0	184	12	US-10-210-172-162	Sequence 60, Appl
35	822	84.9	178	14	US-10-131-241-60	Sequence 60, Appl
36	822	84.9	178	14	US-10-042-347-5	Sequence 5, Appli
37	822	84.9	179	14	US-10-131-241-57	Sequence 57, Appl
38	791	81.7	171	12	US-09-978-531-3	Sequence 3, Appli
39	621	64.2	139	12	US-09-978-531-12	Sequence 12, Appl
40	583	60.2	160	12	US-10-210-172-164	Sequence 164, App
41	574	59.3	1279	12	US-10-087-192-1455	Sequence 1455, App
42	498	51.4	160	12	US-10-210-172-166	Sequence 166, App
43	294	30.4	63	9	US-09-922-540A-1	Sequence 1, Appli
44	294	30.4	63	12	US-09-978-531-5	Sequence 5, Appli
45	294	30.4	63	12	US-09-978-531-11	Sequence 11, Appl

ALIGNMENTS

RESULT 1

US-09-998-831-13  
; Sequence 13, Application US/09998831  
; Patent No. US20020119153A1  
; GENERAL INFORMATION:  
; APPLICANT: Philip E. Thorpe  
; APPLICANT: Rolf A. Brekken  
; TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY  
; TITLE OF INVENTION: INHIBITING VEGF  
; FILE REFERENCE: 4001.002584  
; CURRENT APPLICATION NUMBER: US/09/998,831  
; PRIOR FILING DATE: 2001-11-30  
; PRIOR APPLICATION NUMBER: 09/561,108  
; PRIOR FILING DATE: 2000-04-28  
; NUMBER OF SEQ ID NOS: 44  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 13  
; LENGTH: 191  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-09-998-831-13

Query Match	100.0%	Score 968	DB 9	Length 191
Best Local Similarity	100.0%	Pred. No. 1.1e-100		
Matches 184	Conservative 0	Mismatches 0	Indels 0	Gaps 0
Qy	1	HTHQDFQVHLVALNTPLSGGVRGIGADFCQCARAVGLSGTFRFLSSRLQDLYSI	60	
Db	8	HTHQDFQVHLVALNTPLSGGVRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI	67	
Qy	61	VRRADRGSVIVNLKDEVLSFSGSQGLQFCGARIFSPDGRDLVLRHPWPQKSVW	120	
Db	68	VRRADRGSVIVNLKDEVLSFSGSQGLQFCGARIFSPDGRDLVLRHPWPQKSVW	127	
Qy	121	HGSDPSPGRRLMESYCEFTWRTTTCATCATQASLLSGRLLEQKAASCHNSYIVLCIENSPMT	180	

Db 128 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 187

QY 181 SFSK 184  
|  
|  
|  
|  
Db 188 SFSK 191

## RESULT 2

US-10-373-561-13  
; Sequence 13, Application US/10373561  
; Publication No. US20030175276A1  
; GENERAL INFORMATION:  
; APPLICANT: Philip E. Thorpe  
; APPLICANT: Rolf A. Brekken  
; TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF  
; FILE REFERENCE: 4001.002582  
; CURRENT APPLICATION NUMBER: US/10/373,561  
; CURRENT FILING DATE: 2003-02-24  
; PRIOR APPLICATION NUMBER: US/09/561,499  
; PRIOR FILING DATE: 2000-04-28  
; PRIOR APPLICATION NUMBER: 60/131,432  
; PRIOR FILING DATE: 1999-04-28  
; NUMBER OF SEQ ID NOS: 44  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 13  
; LENGTH: 191  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
US-10-373-561-13

Query Match 100.0%; Score 968; DB 14; Length 191;  
Best Local Similarity 100.0%; Pred. No. 1.1e-100;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 60  
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|  
|  
|  
Db 8 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 67  
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|  
QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 120  
|  
|  
|  
|  
Db 68 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 127  
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|  
|  
QY 121 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 180  
|  
|  
|  
|  
Db 128 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 187  
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QY 181 SFSK 184  
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|  
|  
|  
Db 188 SFSK 191

## RESULT 3

US-10-080-797-3  
; Sequence 3, Application US/10080797  
; Publication No. US20020183253A1  
; GENERAL INFORMATION:  
; APPLICANT: Campochiaro, Peter A.  
; APPLICANT: Dixon, Katharine H.  
; APPLICANT: Brazzell, Romulus K.  
; TITLE OF INVENTION: METHOD FOR TREATING OCULAR  
; FILE REFERENCE: 4-31881A  
; CURRENT APPLICATION NUMBER: US/10/080,797  
; CURRENT FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 21  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 3  
; LENGTH: 207  
; TYPE: PRT  
; ORGANISM: Mouse  
US-10-080-797-3

Query Match 100.0%; Score 968; DB 13; Length 207;  
Best Local Similarity 100.0%; Pred. No. 1.3e-100;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 60  
|  
|  
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Db 24 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 83  
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|  
|  
QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 120  
|  
|  
|  
|  
Db 84 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 143  
|  
|  
|  
|  
QY 121 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 180  
|  
|  
|  
|  
Db 144 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 203  
|  
|  
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|  
QY 181 SFSK 184  
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|  
|  
|  
Db 204 SFSK 207

## RESULT 4

US-10-131-241-46  
; Sequence 46, Application US/10131241  
; Publication No. US20030012792A1  
; GENERAL INFORMATION:  
; APPLICANT: Holaday, John W.  
; APPLICANT: Fortier, Anne H.  
; TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Proliferation  
; FILE REFERENCE: 05213-0344 43170-271565  
; CURRENT APPLICATION NUMBER: US/10/131,241  
; CURRENT FILING DATE: 2002-07-22  
; PRIOR APPLICATION NUMBER: US 09/413,049  
; PRIOR FILING DATE: 1999-10-06  
; PRIOR APPLICATION NUMBER: US 09/316,802  
; PRIOR FILING DATE: 1999-05-21  
; PRIOR APPLICATION NUMBER: US 60/086,586  
; PRIOR FILING DATE: 1998-05-22  
; NUMBER OF SEQ ID NOS: 65  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 46  
; LENGTH: 184  
; TYPE: PRT  
; ORGANISM: Murinae sp.  
US-10-131-241-46

Query Match 99.7%; Score 965; DB 14; Length 184;  
Best Local Similarity 99.5%; Pred. No. 2.4e-100;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 60  
|  
|  
|  
|  
Db 1 HTHQDFQPVHLHVALNTPLSGGMRGIRGADFCQFOQARAVGLSGTFFRAFLSSRLQDLYSI 60  
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|  
QY 61 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 120  
|  
|  
|  
|  
Db 61 VRRADRGSPVIVNLKDEVLSFSGQQLQPGARIFSDGRDVLHRHPAPQKSVW 120  
|  
|  
|  
|  
QY 121 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 180  
|  
|  
|  
|  
Db 121 HGS DSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAAASCHNSYIVLCIENSFMT 180  
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QY 181 SFSK 184  
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|  
|  
|  
Db 181 SFSK 184

## RESULT 5

US-10-292-418-18  
; Sequence 18, Application US/10292418  
; Publication No. US20030139365A1

GENERAL INFORMATION:  
APPLICANT: Lo, Kin-Ming  
APPLICANT: Li, Yue  
APPLICANT: Gillies, Stephen D  
TITLE OF INVENTION: Expression and Export of Angiogenesis Inhibitors as  
TITLE OF INVENTION: Immunofusins  
FILE REFERENCE: LEX-006C1  
CURRENT APPLICATION NUMBER: US/10/292,418  
CURRENT FILING DATE: 2002-11-12  
PRIOR APPLICATION NUMBER: 09/383,315  
PRIOR FILING DATE: 1999-08-25  
PRIOR APPLICATION NUMBER: US 60/097,883  
PRIOR FILING DATE: 1998-08-25  
NUMBER OF SEQ ID NOS: 54  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 18  
LENGTH: 184  
TYPE: PRT  
ORGANISM: Mus musculus  
US-10-292-418-18

Query Match 99.7%; Score 965; DB 14; Length 184;  
Best Local Similarity 99.5%; Pred. No. 2.4e-100;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60

QY 61 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 120  
DB 61 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 120

QY 121 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 121 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

QY 181 SFSK 184  
DB 181 SFSK 184

RESULT 6  
US-09-373-938-2  
Sequence 2, Application US/09373938  
Publication No. US20020115202A1  
GENERAL INFORMATION:  
APPLICANT: Hallenbeck, Paul  
TITLE OF INVENTION: ADENOVIRAL VECTORS INCLUDING DNA SEQUENCES ENCODING ANGIOGENIC IN  
FILE REFERENCE: 4-30899p1  
CURRENT APPLICATION NUMBER: US/09/373,938  
CURRENT FILING DATE: 1999-08-13  
NUMBER OF SEQ ID NOS: 17  
SOFTWARE: Patent In version 3.1  
SEQ ID NO 2  
LENGTH: 207  
TYPE: PRT  
ORGANISM: Mus musculus  
US-09-373-938-2

Query Match 99.7%; Score 965; DB 12; Length 207;  
Best Local Similarity 99.5%; Pred. No. 2.8e-100;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 24 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 83

QY 61 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 120  
DB 84 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 143

QY 121 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 144 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

QY 181 SFSK 184  
DB 204 SFSK 207

RESULT 7  
US-10-422-934-71  
Sequence 71, Application US/10422934  
Publication No. US20030186841A1  
GENERAL INFORMATION:  
APPLICANT: Barbas, Carlos P., III  
APPLICANT: Beerli, Roger  
TITLE OF INVENTION: LIGAND ACTIVATED TRANSCRIPTIONAL REGULATOR PROTEINS  
FILE REFERENCE: 22908-1227C  
CURRENT APPLICATION NUMBER: US/10/422,934  
CURRENT FILING DATE: 2003-04-23  
PRIOR APPLICATION NUMBER: 09/586,625  
PRIOR FILING DATE: 2000-06-02  
PRIOR APPLICATION NUMBER: 09/433,042  
PRIOR FILING DATE: 1999-10-25  
NUMBER OF SEQ ID NOS: 92  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 71  
LENGTH: 207  
TYPE: PRT  
ORGANISM: Muridae  
US-10-422-934-71

Query Match 99.7%; Score 965; DB 14; Length 207;  
Best Local Similarity 99.5%; Pred. No. 2.8e-100; Mismatches 1; Indels 0; Gaps 0;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 24 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 83

QY 61 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 120  
DB 84 VRRADRGSPVIVNLKDEVLSFSGSQQLPGARIFSDGDRVLRHPAPQKSVW 143

QY 121 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 144 HGSDPSGRRLMESYCETWRTTGTGATQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

QY 181 SFSK 184  
DB 204 SFSK 207

RESULT 8  
US-10-036-869-36  
Sequence 36, Application US/10036869  
Publication No. US200201516A1  
GENERAL INFORMATION:  
APPLICANT: Mixson, James A  
TITLE OF INVENTION: CARRIER-DNA COMPLEXES CONTAINING DNA  
ENCODING ANTI-ANGIOGENIC PEPTIDES AND THEIR USE IN GENE  
THERAPY  
NUMBER OF SEQUENCES: 43  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Connolly, Bove, Lodge, & Hutz  
STREET: 1220 Market Street, P.O. Box 2207  
CITY: Wilmington  
STATE: Delaware  
COUNTRY: U.S.A.  
ZIP: 19899  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent in Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/036,869  
FILING DATE: 29-NOV-2002/US/1516A1-2001  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/08/985,526  
FILING DATE: <Unknown>  
APPLICATION NUMBER: US/08/608,845  
FILING DATE: 16-JUL-1996  
ATTORNEY/AGENT INFORMATION:  
NAME: McMorrow Jr., Robert G  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (302) 658-9141  
TELEFAX: (302) 658-5613  
INFORMATION FOR SEQ ID NO: 36:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 185 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
SEQUENCE DESCRIPTION: SEQ ID NO: 36:  
US-10-036-869-36

Query Match 94.6%; Score 916; DB 13; Length 185;  
Best Local Similarity 95.1%; Pred. No. 8.1e-95;  
Matches 176; Conservative 5; Mismatches 2; Indels 2; Gaps 2;  
QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
Db 2 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 119  
Db 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 120  
QY 120 WHGSDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 179  
Db 121 WHGSDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 180  
QY 180 TSFSK 184  
Db 181 TSFSR 185

RESULT 9  
US-10-131-241-49  
; Sequence 49, Application US/10131241  
; Publication No. US20030012792A1  
; GENERAL INFORMATION:  
; APPLICANT: Fortier, John W.  
; APPLICANT: Fortier, Anne H.  
; TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Proliferation  
; TITLE OF INVENTION: and Regulating Angiogenesis Using Cancer Markers  
; FILE REFERENCE: 05213-0344 43170-271565  
; CURRENT APPLICATION NUMBER: US/10/131,241  
; CURRENT FILING DATE: 2002-07-22  
; PRIOR FILING DATE: 1999-10-06  
; PRIOR APPLICATION NUMBER: US 09/413,049  
; PRIOR FILING DATE: 1999-05-21  
; PRIOR APPLICATION NUMBER: US 60/086,586  
; PRIOR FILING DATE: 1998-05-22  
; NUMBER OF SEQ ID NOS: 65  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 49  
; LENGTH: 184  
; TYPE: PRT  
; ORGANISM: Canine sp.  
US-10-131-241-49

Query Match 86.9%; Score 841; DB 14; Length 184;

Best Local Similarity 84.2%; Pred. No. 2.3e-86;  
Matches 155; Conservative 17; Mismatches 12; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
Db 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 120  
Db 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 120  
QY 121 HGSDDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 180  
Db 121 HGSDDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 180  
QY 181 SFSK 184  
Db 181 SFSK 184  
RESULT 10  
US-10-292-418-35  
; Sequence 35, Application US/10292418  
; Publication No. US20030139365A1  
; GENERAL INFORMATION:  
; APPLICANT: Lo, Kin-Ming  
; APPLICANT: Li, Yue  
; APPLICANT: Gillies, Stephen D  
; TITLE OF INVENTION: Expression and Export of Angiogenesis Inhibitors as  
; FILE REFERENCE: LEX-006C1  
; CURRENT APPLICATION NUMBER: US/10/292,418  
; CURRENT FILING DATE: 2002-11-12  
; PRIOR APPLICATION NUMBER: 09/383,315  
; PRIOR FILING DATE: 1999-08-25  
; PRIOR APPLICATION NUMBER: US 60/097,883  
; PRIOR FILING DATE: 1998-08-25  
; NUMBER OF SEQ ID NOS: 54  
; SOFTWARE: Patent in Ver. 2.0  
; SEQ ID NO 35  
; LENGTH: 184  
; TYPE: PRT  
; ORGANISM: Canis familiaris  
US-10-292-418-35

Query Match 86.9%; Score 841; DB 14; Length 184;  
Best Local Similarity 84.2%; Pred. No. 2.3e-86;  
Matches 155; Conservative 17; Mismatches 12; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
Db 1 HTHQDFQPVHLVALNTPLSGGMRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 120  
Db 61 VRRADRGSPVIVNLKDEVLSFSGSQGLQPGARIFSDGDRDLVLRHPAPQKSV 120  
QY 121 HGSDDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 180  
Db 121 HGSDDPSGRRLMESYCETWRTTGTATGQASSLLSGLLEQKAASCHNSYIVLCIENSFM 180  
QY 181 SFSK 184  
Db 181 SFSK 184

RESULT 11  
US-10-131-241-55  
; Sequence 55, Application US/10131241  
; Publication No. US20030012792A1  
; GENERAL INFORMATION:  
; APPLICANT: Holaday, John W.  
; APPLICANT: Fortier, Anne H.

;; TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Proliferation  
;; FILE REFERENCE: 05213-0344 43170-271565  
;; CURRENT APPLICATION NUMBER: US/10/131.241  
;; CURRENT FILING DATE: 2002-07-22  
;; PRIOR APPLICATION NUMBER: US 09/413,049  
;; PRIOR FILING DATE: 1999-10-06  
;; PRIOR APPLICATION NUMBER: US 09/316,802  
;; PRIOR FILING DATE: 1999-05-21  
;; PRIOR APPLICATION NUMBER: US 60/086,586  
;; PRIOR FILING DATE: 1998-05-22  
;; NUMBER OF SEQ ID NOS: 65  
;; SOFTWARE: PatentIn version 3.1  
;; SEQ ID NO 55  
;; LENGTH: 181  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
US-10-131-241-55

Query Match 86.8%; Score 840; DB 14; Length 181;  
Best Local Similarity 85.6%; Pred. No. 2.9e-86;  
Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 1 HSHRDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGOLQPGARIFSDGRDVLRHHPWPQKSVW 120  
DB 61 VRRADRAAVPIVNLKDELLFPSEALFSGSEGLPGARIFSDGKDVLRHPTWPQKSVW 120  
QY 121 HGSDPSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 121 HGSDPNGRRLTESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
QY 181 S 181  
DB 181 A 181

RESULT 12  
US-09-998-831-14  
;; Sequence 14, Application US/09998831  
;; Patent No. US20020119153A1  
;; GENERAL INFORMATION:  
;; APPLICANT: Philip E. Thorpe  
;; APPLICANT: Rolf A. Brekken  
;; TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY  
;; TITLE OF INVENTION: INHIBITING VEGF  
;; FILE REFERENCE: 4001.002584  
;; CURRENT APPLICATION NUMBER: US/09/998,831  
;; CURRENT FILING DATE: 2001-11-30  
;; PRIOR APPLICATION NUMBER: 09/561,108  
;; PRIOR FILING DATE: 2000-04-28  
;; NUMBER OF SEQ ID NOS: 44  
;; SOFTWARE: PatentIn Ver. 2.0  
;; SEQ ID NO 14  
;; LENGTH: 182  
;; TYPE: PRT  
;; ORGANISM: Artificial Sequence  
;; FEATURE:  
;; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC  
;; OTHER INFORMATION: PEPTIDE  
US-09-998-831-14

Query Match 86.8%; Score 840; DB 9; Length 182;  
Best Local Similarity 85.6%; Pred. No. 2.9e-86;  
Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 1 HSHRDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60

QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGOLQPGARIFSDGRDVLRHHPWPQKSVW 120  
DB 61 VRRADRAAVPIVNLKDELLFPSEALFSGSEGLPGARIFSDGKDVLRHPTWPQKSVW 120  
QY 121 HGSDPSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 121 HGSDPNGRRLTESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
QY 181 S 181  
DB 181 A 181

## RESULT 13

US-10-131-241-54  
;; Sequence 54, Application US/10131241  
;; Publication No. US20030012792A1  
;; GENERAL INFORMATION:  
;; APPLICANT: Holaday, John W.  
;; APPLICANT: Fortier, Anne H.  
;; TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Proliferation  
;; FILE REFERENCE: 05213-0344 43170-271565  
;; CURRENT APPLICATION NUMBER: US/10/131.241  
;; CURRENT FILING DATE: 2002-07-22  
;; PRIOR APPLICATION NUMBER: US 09/413,049  
;; PRIOR FILING DATE: 1999-10-06  
;; PRIOR APPLICATION NUMBER: US 09/316,802  
;; PRIOR FILING DATE: 1999-05-21  
;; PRIOR APPLICATION NUMBER: US 60/086,586  
;; PRIOR FILING DATE: 1998-05-22  
;; NUMBER OF SEQ ID NOS: 65  
;; SOFTWARE: PatentIn version 3.1  
;; SEQ ID NO 54  
;; LENGTH: 182  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
US-10-131-241-54

Query Match 86.8%; Score 840; DB 14; Length 182;  
Best Local Similarity 85.6%; Pred. No. 2.9e-86;  
Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
DB 1 HSHRDFQPVHLVALNTPSLGGMGIRGADFCQCARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSQGOLQPGARIFSDGRDVLRHHPWPQKSVW 120  
DB 61 VRRADRAAVPIVNLKDELLFPSEALFSGSEGLPGARIFSDGKDVLRHPTWPQKSVW 120  
QY 121 HGSDPSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
DB 121 HGSDPNGRRLTESYCETWRTTGTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180  
QY 181 S 181  
DB 181 A 181

## RESULT 14

US-10-042-347-3  
;; Sequence 3, Application US/10042347  
;; Publication No. US20030114370A1  
;; GENERAL INFORMATION:  
;; APPLICANT: O'Reilly, Michael S.  
;; APPLICANT: Folkman, M. Judah  
;; TITLE OF INVENTION: Nucleic Acid Molecules Encoding Endostatin Protein and Peptide  
;; TITLE OF INVENTION: Thereof  
;; FILE REFERENCE: 05213-0880 (43170-249874)  
;; CURRENT APPLICATION NUMBER: US/10/042,347  
;; CURRENT FILING DATE: 2002-01-11  
;; PRIOR APPLICATION NUMBER: US 09/315,689

```
; PRIOR FILING DATE: 1999-05-20
; PRIOR APPLICATION NUMBER: US 60/106,343
; PRIOR FILING DATE: 1998-10-30
; PRIOR APPLICATION NUMBER: US 09/154,302
; PRIOR FILING DATE: 1998-09-16
; PRIOR APPLICATION NUMBER: US 08/740,168
; PRIOR FILING DATE: 1996-10-22
; PRIOR APPLICATION NUMBER: US 60/005,835
; PRIOR FILING DATE: 1995-10-23
; PRIOR APPLICATION NUMBER: US 60/023,070
; PRIOR FILING DATE: 1996-08-02
; PRIOR APPLICATION NUMBER: US 60/026,263
; PRIOR FILING DATE: 1996-09-17
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 182
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-042-347-3
```

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Query Match 86.8%; Score 840; DB 14; Length 182;
Best Local Similarity 85.6%; Pred. No. 2.9e-86;
Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLHVALNTPLSGGMGIRGADFCFQQARAVGLAGTFRAFLSSRLQDLYSI 60
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
1 HSHRDFQPVHLHVALNTPLSGGMGIRGADFCFQQARAVGLAGTFRAFLSSRLQDLYSI 60
QY 61 VRADRGSPVIVNLKDEVLSPSWDSLFSGSQGOLQPGARIFSPDGRDVLRHHPAMPOKSVW 120
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
61 VRADRAAVPIVNLKDELLFSSWALFSGSGPLKPGARIFSPDGDVLRHPTWPQKSVW 120
QY 121 HGSDPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
121 HGSDPNRRLTESYCETWRTTGTATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180
QY 181 S 181
Db :
181 A 181
```

```
RESULT 15
US-10-373-561-14
; Sequence 14, Application US/10373561
; Publication No. US20030175276A1
; GENERAL INFORMATION:
; APPLICANT: Philip E. Thorpe
; APPLICANT: Rolf A. Brekken
; TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
; FILE REFERENCE: 4001.002582
; CURRENT APPLICATION NUMBER: US/10/373,561
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/561,499
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: 60/131,432
; PRIOR FILING DATE: 1999-04-28
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
; LENGTH: 182
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
; OTHER INFORMATION: PEPTIDE
US-10-373-561-14
```

```
Query Match 86.8%; Score 840; DB 14; Length 182;
Best Local Similarity 85.6%; Pred. No. 2.9e-86;
Matches 155; Conservative 15; Mismatches 11; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLHVALNTPLSGGMGIRGADFCFQQARAVGLAGTFRAFLSSRLQDLYSI 60
```

```
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
1 HSHRDFQPVHLHVALNTPLSGGMGIRGADFCFQQARAVGLAGTFRAFLSSRLQDLYSI 60
QY 61 VRADRGSPVIVNLKDEVLSPSWDSLFSGSQGOLQPGARIFSPDGRDVLRHHPAMPOKSVW 120
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
61 VRADRAAVPIVNLKDELLFSSWALFSGSGPLKPGARIFSPDGDVLRHPTWPQKSVW 120
QY 121 HGSDPSGRRLMESYCETWRTTGTATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180
Db :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
121 HGSDPNRRLTESYCETWRTTGTATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180
QY 181 S 181
Db :
181 A 181
```

Search completed: August 31, 2004, 20:09:35  
Job time : 127 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 31, 2004, 19:42:20 ; Search time 120 Seconds  
(without alignments)  
433.240 Million cell updates/sec

Title: US-09-589-777C-2

Perfect score: 968  
Sequence: 1 HTHQDFQVFLHVALNPLS.....CHNSYIVLCIENSMFTFSK 184

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

- Database : A\_Geneseq\_29Jan04:\*
- 1: Geneseqp1980s:\*
  - 2: Geneseqp1990s:\*
  - 3: Geneseqp2000s:\*
  - 4: Geneseqp2001s:\*
  - 5: Geneseqp2002s:\*
  - 6: Geneseqp2003as:\*
  - 7: Geneseqp2003bs:\*
  - 8: Geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	968	100.0	184	4 AAB49380	Aab49380 Murine en
2	968	100.0	191	3 AAB28398	Aab28398 Murine en
3	968	100.0	191	3 AAB77950	Aab77950 Amino aci
4	968	100.0	207	5 ABB79902	Abb79902 Mouse end
5	965	99.7	184	2 AAY08689	Aay08689 Murine en
6	965	99.7	184	3 AAY70258	Aay70258 Murine en
7	965	99.7	184	5 ABB31793	Abb31793 Human end
8	965	99.7	207	4 AAB2031	Aab2031 Murine en
9	965	99.7	207	4 AAB71930	Aab71930 Murine en
10	965	99.7	218	2 AAY08691	Aay08691 Murine ge
11	965	99.7	580	2 AAY08692	Aay08692 Murine ge
12	965	99.7	1288	2 AAW26328	Aaw26328 Mouse alp
13	963	99.5	184	2 AAY18409	Aay18409 Endostati
14	960	99.2	1288	2 AAW92297	Aaw92297 Mouse alp
15	950	98.1	684	4 AAY25114	Aay25114 Mouse alp
16	946	97.7	183	5 AAM49504	Aam49504 Mouse end
17	916	94.6	185	2 AAY06197	Aay06197 Anti-angi
18	855	88.3	184	5 ABB31794	Abb31794 Murine en
19	841	86.9	184	3 AAY70265	Aay70265 Canine an
20	840	86.8	181	4 AAU00898	Aau00898 Human end
21	840	86.8	182	3 AAY59622	Aay59622 Human end
22	840	86.8	182	3 AAY94323	Aay94323 Human end
23	840	86.8	182	3 AAB28399	Aab28399 Human end
24	840	86.8	182	4 AAU00897	Aau00897 Human end
25	840	86.8	182	5 AAU77951	Aau77951 Amino aci

26	840	86.8	183	2 AAY02113	Aay02113 SEQ ID:76
27	840	86.8	183	2 AAY08693	Aay08693 Human end
28	840	86.8	183	3 AAY70252	Aay70252 Human ang
29	840	86.8	183	3 AAY90771	Aay90771 Human ang
30	840	86.8	183	3 AAB16451	Aab16451 Human ang
31	840	86.8	183	3 AAB30493	Aab30493 Amino aci
32	840	86.8	183	4 AAB49379	Aab49379 Human end
33	840	86.8	183	4 AAU00896	Aau00896 Human end
34	840	86.8	183	5 ABB79901	Abb79901 Human end
35	840	86.8	183	5 AAM49503	Aam49503 Human end
36	840	86.8	183	5 AAY48895	Aay48895 Human end
37	840	86.8	183	5 AAU97132	Aau97132 Human end
38	840	86.8	183	6 AAG79753	Aag79753 Human end
39	840	86.8	195	3 AAW90874	Aaw90874 Human HMW
40	840	86.8	216	3 AAB30495	Aab30495 Amino aci
41	840	86.8	275	5 AAU76689	Aau76689 Synthetic
42	840	86.8	310	5 AAU76688	Aau76688 Human col
43	840	86.8	513	5 ABB73586	Abb73586 Human end
44	840	86.8	682	5 ABB41878	Abb41878 Human ova
45	840	86.8	684	2 AAW26327	Aaw26327 Human alp

ALIGNMENTS

RESULT 1

AAB49380  
ID AAB49380 standard; protein; 184 AA.

XX	AC	AAB49380;			
XX	AC				
DT	02-MAR-2001	(first entry)			
XX					
DE	Murine endostatin	SEQ ID NO: 4.			
XX					
KW	Endostatin; antiangiogenic; angiogenesis; human; mouse; chicken; cancer;				
KW	inflammation; angiogenesis-dependent disease.				
XX					
OS	Mus musculus.				
XX					
PN	WO200067771-A1.				
XX					
PD	16-NOV-2000.				
XX					
PF	02-MAY-2000; 2000MO-US012063.				
XX					
PR	06-MAY-1999; 99US-0132907P.				
PR	14-JUL-1999; 99US-00353333.				
XX	(BURN-) BURNHAM INST.				
PA					
XX	Vuori K;				
XX					
DR	WPI; 2001-040937/05.				
DR	N-PSDB; AAC88290.				
XX					
PT	Endostatin peptide comprising at least four endostatin amino acid				
PT	residues are e.g. angiogenesis inhibitors for treating cancer and				
XX	diabetic retinopathy.				
XX					
PS	Disclosure; Fig 1; 146pp; English.				
XX					
CC	The present invention provides endostatin peptides which can be used in				
CC	the modulation of angiogenesis. This is useful in the treatment of				
CC	cancers, inflammation, rheumatoid arthritis, chronic articular				
CC	rheumatism, psoriasis, disorders associated with inopportune invasion of				
CC	vessels such as diabetic retinopathy, neovascular glaucoma, retinopathy				
CC	of prematurity, macular degeneration, corneal graft rejection,				
CC	retrolental fibroplasia, rubeosis, capillary proliferation in				
CC	atherosclerotic plaques and osteoporosis. Other angiogenesis-dependent				
CC	diseases include Osler-Webber syndrome, myocardial angiogenesis, plaque				
CC	neovascularisation, telangiectasia, haemophilic joints and wound				
CC	granulation. In addition, the peptides can be used as birth control				

CC agents  
XX Sequence 184 AA;  
SQ

Query Match 100.0%; Score 968; DB 4; Length 184;  
Best Local Similarity 100.0%; Pred. No. 1.3e-107;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVHLHVALNTPLSGCMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60  
DB 1 HTHQDFQVHLHVALNTPLSGCMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

QY 61 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSDGRDVLHRHPAMPQKSVW 120  
DB 61 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSDGRDVLHRHPAMPQKSVW 120

QY 121 HGSDFSGRLMESYCEWTWTTGATGQASSLLSRLLEOKAASCHNSYIVLCIENSFMT 180  
DB 121 HGSDFSGRLMESYCEWTWTTGATGQASSLLSRLLEOKAASCHNSYIVLCIENSFMT 180

QY 181 SFSK 184  
DB 181 SFSK 184

RESULT 2  
AAB28398  
ID AAB28398 standard; protein; 191 AA.  
XX  
AC AAB28398;  
XX  
DT 19-FEB-2001 (first entry)  
DE Murine endostatin.  
XX  
KW Murine; endostatin; cytostatic; antiproliferative;  
KW vascular endothelial growth factor; VEGF; antibody; VEGF2 receptor;  
KW cancer; vascularised solid tumour.  
XX  
OS Mus sp.  
XX  
FN WO200064946-A2.  
XX  
PD 02-NOV-2000.  
XX  
PF 28-APR-2000; 2000WO-US011367.  
XX  
PR 28-APR-1999; 99US-0131432P.  
XX  
PA (TEXA ) UNIV TEXAS SYSTEM.  
XX  
PI Thorpe PE, Brekken RA;  
XX  
DR WPI; 2000-687317/67.  
DR N-PSDB; AAC67777.  
XX  
Immunogenic composition for the treatment and diagnosis of cancer  
comprises an anti-VEGF (vascular endothelial growth factor) antibody  
binding the same epitope as the monoclonal antibody ATCC PTA 1595.  
XX  
Example 10; Page 290-291; 298pp; English.

The present invention relates to anti-Vascular Endothelial Growth Factor (VEGF) antibodies that bind to the same epitope as the monoclonal antibody ATCC PTA 1595 and which significantly inhibit VEGF binding to the VEGF receptor VEGFR2, without inhibiting VEGF binding to the VEGF receptor VEGFR1. The present sequence is murine endostatin. Endostatin may be conjugated onto the anti-VEGF antibodies of the present invention. The anti-VEGF antibodies of the present invention are useful for the treatment and diagnosis of cancer, especially vascularised solid tumours  
XX  
Sequence 191 AA;

Query Match 100.0%; Score 968; DB 3; Length 191;  
Best Local Similarity 100.0%; Pred. No. 1.4e-107;  
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVHLHVALNTPLSGCMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60  
DB 8 HTHQDFQVHLHVALNTPLSGCMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 67

QY 61 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSDGRDVLHRHPAMPQKSVW 120  
DB 68 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSDGRDVLHRHPAMPQKSVW 127

QY 121 HGSDFSGRLMESYCEWTWTTGATGQASSLLSRLLEOKAASCHNSYIVLCIENSFMT 180  
DB 128 HGSDFSGRLMESYCEWTWTTGATGQASSLLSRLLEOKAASCHNSYIVLCIENSFMT 187

QY 181 SFSK 184  
DB 188 SFSK 191

RESULT 3  
AAU77950  
ID AAU77950 standard; protein; 191 AA.  
XX  
AC AAU77950;  
XX  
DT 02-JUL-2002 (first entry)  
DE Amino acid sequence for mouse endostatin.  
XX  
KW Mouse; immunconjugate; anti-vascular endothelial growth factor antibody;  
KW anti-VEGF antibody; monoclonal antibody 2C3 ATCC PTA 1595; VEGF receptor;  
KW VEGFR2; KDR/Fik-1; VEGFR1; Flt-1; angiogenesis; macular degeneration;  
KW ocular neovascular disease; cancer; vascularised solid tumour; AIDS;  
KW metastatic tumour; endothelial cell proliferation; inflammatory disorder;  
KW atherosclerosis; diabetic retinopathy; corneal graft rejection;  
KW acquired immune deficiency syndrome; infection; restenosis; fungal ulcer;  
KW sickle cell anaemia; endometriosis; endostatin.  
XX  
OS Mus sp.  
XX  
PN AU200179401-A.  
XX  
PD 06-DEC-2001.  
XX  
PF 12-OCT-2001; 2001AU-00079401.  
XX  
PR 28-APR-2000; 2000AU-00048049.  
XX  
PA (TEXA ) UNIV TEXAS SYSTEM.  
XX  
PI Thorpe PE, Brekken RA;  
XX  
DR WPI; 2002-281368/33.  
DR N-PSDB; ABK47719.  
XX  
Immunconjugate compositions for treating cancer by inhibiting  
PT angiogenesis and for delivering a diagnostic agent to tumor, comprises  
PT anti-vascular endothelial growth factor antibody attached to a biological  
PT agent.  
XX  
Example 10; Page 11-12 (Sequence listing); 299pp; English.

The present invention relates to antibody-based compositions comprising an immunconjugate such as anti-vascular endothelial growth factor (VEGF) antibody (Ab) (or its antigen-binding fragment), attached to a biological agent, where the Ab binds to the same epitope as the monoclonal antibody (MAb) 2C3 ATCC PTA 1595, and significantly inhibits VEGF binding to the VEGF receptor VEGFR2 (KDR/Fik-1) without inhibiting VEGF binding to the VEGF receptor VEGFR1 (Flt-1). The compositions of the invention are useful in therapy, and diagnosis, for inhibiting angiogenesis in an animal having ocular neovascular disease or macular degeneration, and for



KW tumour growth; solid tumour; diabetic retinopathy; retina.

XX Mus sp.

OS WO9926480-A1.

PN 03-JUN-1999.

XX 20-NOV-1998; 98WO-US024950.

XX 20-NOV-1997; 97US-00975424.

XX (GENE-) GENETIX PHARM INC.

PA (MASI ) MASSACHUSETTS INST TECHNOLOGY.

XX Leboult P, Pawliuk RJ, Bachelot T;

PI WPI; 1999-357696/30.

XX N-PSDB; AAX77715.

XX Anti-angiogenic gene therapy vectors.

PT Disclosure; Fig 6; 83pp; English.

XX This invention describes a novel viral gene therapy vector comprising a nucleic acid molecule encoding an anti-angiogenic polypeptide chosen from human or murine angiostatin, human or murine endostatin and angiogenesis-inhibiting fusions and fragments, where the viral vector is sufficiently attenuated for use in human gene therapy. The products of the invention have anti-angiogenic, cytostatic, anti-diabetic and ophthalmological activity. The vector is used in gene therapy for inhibiting tumour growth in humans harbouring a solid tumour. The vector expresses an anti-angiogenic polypeptide. An additional use comprises treatment of diabetic retinopathy, where the anti-angiogenic polypeptide inhibits angiogenesis in the vicinity of the retina. The vector is administered to cells ex vivo and then administered to the patient.

XX Sequence 184 AA;

Query Match 99.7%; Score 965; DB 2; Length 184;

Best Local Similarity 99.5%; Pred. No. 3e-107;

Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVPLHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

DB 1 HTHQDFQVPLHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

QY 61 VRRADRGSPVIVNLKDEVLSFSDLSFGSGQGLQPGARIFSPDGRDVLHRHPAPQKSVW 120

DB 61 VRRADRGSPVIVNLKDEVLSFSDLSFGSGQGLQPGARIFSPDGRDVLHRHPAPQKSVW 120

QY 121 HGSDPSGRRLMESYCETWRTTTCATGQASLLSRLLEQKAAACHNSYIVLCIENSFMT 180

DB 121 HGSDPSGRRLMESYCETWRTTTCATGQASLLSRLLEQKAAACHNSYIVLCIENSFMT 180

QY 181 SFSK 184

DB 181 SFSK 184

RESULT 6

AAY70258

ID AAY70258 standard; protein; 184 AA.

AC AAY70258;

DT 06-JUN-2000 (first entry)

DE Murine angiogenesis inhibitor, endostatin.

KW Murine; immunoglobulin Fc fragment; endostatin; immunofusin;

KW angiogenesis; inhibitor; cytostatic; antirheumatoid; antiarthritic;

KW antipsoriatic; antidiabetic; ophthalmological; immunosuppressant;

KW

KW

KW

KW

KW

XX

OS

XX

XX

PN

XX

XX

PD

XX

XX

PF

XX

XX

XX

PR

XX

XX

XX

PA

XX

XX

PI

XX

XX

DR

XX

DR

XX

XX

XX

PT

XX

XX

XX

PT

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

vasotropic; vulnery; treatment; antiarteriosclerosis; tumour; metastasis; atherosclerosis; psoriasis; rheumatoid arthritis; ocular angiogenic disease; diabetic retinopathy; macular degeneration; myocardial angiogenesis; plaque neovascularisation; telangiectasia; wound granulation; keloid scar; gene therapy.

XX Mus musculus.

XX WO200011033-A2.

XX 02-MAR-2000.

XX 25-AUG-1999; 99WO-US019329.

XX 25-AUG-1998; 98US-0097883P.

XX (LEXI-) LEXINGEN PHARM CORP.

XX Lo K, Li Y, Gillies SD;

XX WPI; 2000-237616/20.

XX N-PSDB; AAZ51299.

XX Novel fusion protein of angiostatin or endostatin and an immunoglobulin FC region, useful for treating conditions mediated by angiogenesis, such as rheumatoid arthritis, tumors and macular degeneration.

XX Example 5; Page 48-49; 68pp; English.

XX The patent discloses a DNA molecule encoding a fusion protein comprising a signal sequence, an immunoglobulin FC region, and an angiogenesis inhibitor selected from angiostatin, endostatin, a plasminogen fragment having angiostatin activity, a collagen XVIII fragment having endostatin activity, or combinations of them. The fusion protein (immunofusin) is used to inhibit angiogenesis and to treat diseases or conditions mediated by angiogenesis. Conditions that may be treated include solid tumours, blood born tumours, tumour metastasis, benign tumours including haemangiomas, acoustic neuromas, neurofibromas, trachomas and pyrogenic granulomas, rheumatoid arthritis, psoriasis, ocular angiogenic diseases e.g. diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubrosis and Osler-Webber syndrome; myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophilic joints, angiofibroma, wound granulation, and excessive or abnormal stimulation of endothelial cells, intestinal cells, atherosclerosis, scleroderma and hypertrophic scars, i.e. keloid scars. The DNA constructs may be used in gene therapy. The present sequence is a murine endostatin used in the construction of immunofusin containing murine immunoglobulin FC fragment

XX Sequence 184 AA;

Query Match 99.7%; Score 965; DB 3; Length 184;

Best Local Similarity 99.5%; Pred. No. 3e-107;

Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQVPLHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

DB 1 HTHQDFQVPLHLVALNTPLSGMRGIRGADFCQFQARAVGLSGTFFRAFLSSRLQDLYSI 60

QY 61 VRRADRGSPVIVNLKDEVLSFSDLSFGSGQGLQPGARIFSPDGRDVLHRHPAPQKSVW 120

DB 61 VRRADRGSPVIVNLKDEVLSFSDLSFGSGQGLQPGARIFSPDGRDVLHRHPAPQKSVW 120

QY 121 HGSDPSGRRLMESYCETWRTTTCATGQASLLSRLLEQKAAACHNSYIVLCIENSFMT 180

DB 121 HGSDPSGRRLMESYCETWRTTTCATGQASLLSRLLEQKAAACHNSYIVLCIENSFMT 180

QY 181 SFSK 184

DB 181 SFSK 184

RESULT 7

ABG31793  
ID ABG31793 standard; protein; 184 AA.  
XX  
AC ABG31793;  
XX  
XX 05-DEC-2002 (first entry)  
XX  
XX Human endostatin polypeptide.  
XX  
XX Human; endostatin; tumour; cancer; metastasis; cytostatic;  
XX antiangiogenic.  
XX  
XX Homo sapiens.  
XX  
XX WO200268457-A2.  
XX  
XX 06-SEP-2002.  
XX  
XX 27-FEB-2002; 2002WO-IT000119.  
XX  
XX 27-FEB-2001; 2001IT-MI000394.  
XX (UYMI-) UNIV MILANO.  
XX  
XX Chillemi F, Vicentini LMT, Francescato P;  
XX  
XX WPI; 2002-698655/75.  
XX  
XX New peptide useful for the preparation of medicaments with antiangiogenic  
XX activity that may be used in treating tumors or metastases, comprises a  
XX sequence corresponding to fragments of human endostatin.  
XX  
XX Disclosure; Fig 1; 24pp; English.  
XX  
XX The invention relates to peptide comprising 20-50 amino acids with  
XX sequences corresponding to the human endostatin polypeptide sequence, its  
XX salt or non-toxic derivative. The peptides are useful in the preparation  
XX of medicaments with antiangiogenic activity which may be useful in  
XX treating tumors or metastases. This sequence represents a human  
XX endostatin polypeptide  
XX  
XX Sequence 184 AA;  
Query Match 99.7%; Score 965; DB 5; Length 184;  
Best Local Similarity 99.5%; Pred. No. 3e-107;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
QY 1 HTHQDFQVPLHLVALNTPLSGGMGIRGADFCQFQARAVGLSGTFRFLSSRLQDLYSI 60  
Db 1 HTHQDFQVPLHLVALNTPLSGGMGIRGADFCQFQARAVGLSGTFRFLSSRLQDLYSI 60  
QY 61 VRRADRGSGVPIVNLKDEVLSPSWDSLFGSGQQLQPGARIFSGDGRDLRHPAPQKSVW 120  
Db 61 VRRADRGSGVPIVNLKDEVLSPSWDSLFGSGQQLQPGARIFSGDGRDLRHPAPQKSVW 120  
QY 121 HGSDPSGRLMESYCYETWRTTGTATGQASSLLSRLLEQKAASCHNSYIVLCIENSFMT 180  
Db 121 HGSDPSGRLMESYCYETWRTTGTATGQASSLLSRLLEQKAASCHNSYIVLCIENSFMT 180  
QY 181 SFSK 184  
Db 181 SFSK 184  
RESULT 8  
AAE02031  
ID AAE02031 standard; protein; 207 AA.  
XX  
XX AAE02031;  
XX  
XX 31-JUL-2001 (first entry)  
XX  
XX Murine endostatin fused to N-terminal secretion signal.  
DE

XX Murine; endostatin; fusion protein; nucleotide-binding domain; NBD;  
XX ligand-binding domain; LBD; transcription regulating domain; TRD; cancer;  
XX zinc finger protein; ZFP; ligand-activated transcriptional regulator;  
XX gene regulation; gene therapy; cell proliferative disorder; psoriasis;  
XX pemphigus vulgaris; Behcet's syndrome; lipid histiocytosis.  
XX  
XX Mus sp.  
XX  
XX WO200130843-A1.  
XX  
XX 03-MAY-2001.  
XX  
XX 23-OCT-2000; 2000WO-EP010430.  
XX  
XX 25-OCT-1999; 98US-00433042.  
XX  
XX 02-JUN-2000; 2000US-00586625.  
XX  
XX (NOVS ) NOVARTIS AG.  
XX (SCRI ) SCRIPPS RES INST.  
XX  
XX Barbas CF, Kadan M, Beerli R;  
XX  
XX WPI; 2001-308618/32.  
XX N-PSDB; AAD06108.  
XX  
XX New fusion protein containing nucleotide-binding and ligand-binding  
XX domains, useful e.g. in gene therapy of cancer, provides ligand-activated  
XX control of gene expression.  
XX  
XX Example 19; Page 209; 218pp; English.  
XX  
XX The invention relates to fusion protein comprising a nucleotide-binding  
XX domain (NBD), a ligand-binding domain (LBD) of an intracellular receptor  
XX (ICR) and a transcription regulating domain (TRD). NBD is a polydactyl  
XX zinc finger protein (ZFP), or a modular part of it, that interacts  
XX specifically with a contiguous sequence of at least 3 nucleotides. The  
XX fusion protein functions as a ligand-activated transcriptional regulator.  
XX The fusion protein and the nucleic acid encoding it, are used to regulate  
XX gene expression, particularly in gene therapy for treating malignant cell  
XX proliferative diseases (e.g. colon cancer, prostate cancer, renal-cell  
XX carcinoma) and non-malignant cell proliferative diseases (e.g. psoriasis,  
XX pemphigus vulgaris, Behcet's syndrome and lipid histiocytosis). The  
XX fusion protein and its DNA are also useful for treating diseases caused  
XX by viruses in humans/plants, genetic and/or acquired diseases. The fusion  
XX protein can be designed to target any selected gene (endogenous or  
XX exogenous), and can be made to have different selectivity or specificity  
XX for endogenous or exogenous ligands. The present sequence is murine  
XX endostatin fused to an N-terminal secretion signal. The corresponding  
XX cDNA sequence was used in the construction of Left end shuttle plasmids  
XX containing regulatable transgene cassettes for evaluation of Cys2-His2  
XX Zinc finger DNA binding domain (ZBD)-Oestrogen receptor (ER) LBD  
XX regulators  
XX  
XX Sequence 207 AA;  
Query Match 99.7%; Score 965; DB 4; Length 207;  
Best Local Similarity 99.5%; Pred. No. 3.6e-107;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
QY 1 HTHQDFQVPLHLVALNTPLSGGMGIRGADFCQFQARAVGLSGTFRFLSSRLQDLYSI 60  
Db 24 HTHQDFQVPLHLVALNTPLSGGMGIRGADFCQFQARAVGLSGTFRFLSSRLQDLYSI 83  
QY 61 VRRADRGSGVPIVNLKDEVLSPSWDSLFGSGQQLQPGARIFSGDGRDLRHPAPQKSVW 120  
Db 84 VRRADRGSGVPIVNLKDEVLSPSWDSLFGSGQQLQPGARIFSGDGRDLRHPAPQKSVW 143  
QY 121 HGSDPSGRLMESYCYETWRTTGTATGQASSLLSRLLEQKAASCHNSYIVLCIENSFMT 180  
Db 144 HGSDPSGRLMESYCYETWRTTGTATGQASSLLSRLLEQKAASCHNSYIVLCIENSFMT 203  
QY 181 SFSK 184



QY 181 SPSK 184  
Db 215 SPSK 218

RESULT 11  
AAV08692  
ID AAV08692 standard; protein; 580 AA.  
XX AC  
XX AAY08692;  
DT 10-AUG-1999 (first entry)  
XX  
DE Murine gene therapy peptide construct SP-K1-K2-K3-K4-Flag-Endo.  
XX  
KW Plasminogen; murine; angiostatin; endostatin; gene therapy; vector;  
KW anti-angiogenic; attenuation; cytostatic; anti-diabetic; ophthalmology;  
KW tumour growth; solid tumour; diabetic retinopathy; retina; construct.  
XX  
OS Mus sp.  
OS Synthetic.  
PN WO9926480-A1.  
XX  
PD 03-JUN-1999.  
XX  
PF 20-NOV-1998; 98WO-US024950.  
XX  
PR 20-NOV-1997; 97US-00975424.  
XX  
PA (GENE-) GENETIX PHARM INC.  
PA (MAST) MASSACHUSETTS INST TECHNOLOGY.  
XX  
\*PI Leboulch P, Pawliuk RJ, Bachelot T;  
XX  
XX WPI: 1999-357696/30.  
DR N-PSDB; AAX77718.  
XX  
PT Anti-angiogenic gene therapy vectors.  
XX  
PS Example 1; Page 72-74; 83pp; English.  
CC This invention describes a novel viral gene therapy vector comprising a  
CC nucleic acid molecule encoding an anti-angiogenic polypeptide chosen from  
CC human or murine angiostatin, human or murine endostatin and angiogenesis-  
CC inhibiting fusions and fragments, where the viral vector is sufficiently  
CC attenuated for use in human gene therapy. The products of the invention  
CC have anti-angiogenic, cytostatic, anti-diabetic and ophthalmological  
CC activity. The vector is used in gene therapy for inhibiting tumour growth  
CC in humans harbouring a solid tumour. The vector expresses an anti-  
CC angiogenic polypeptide. An additional use comprises treatment of diabetic  
CC retinopathy, where the anti-angiogenic polypeptide inhibits angiogenesis  
CC in the vicinity of the retina. The vector is administered to cells ex  
CC vivo and then administered to the patient  
XX  
SQ Sequence 580 AA;

Query Match 99.7%; Score 965; DB 2; Length 580;  
Best Local Similarity 99.5%; Pred. No. 1.7e-106;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVVALNTPLSGMGRGADFCQFOARAVGLSGTFFRAFLSRRLQDLYSI 60  
Db 397 HTHQDFQPVHLVVALNTPLSGMGRGADFCQFOARAVGLSGTFFRAFLSRRLQDLYSI 456  
QY 61 VRRADRGSVPIVNLKDEVLSFSGQSQLOPGARIFSPDGRDVLHRHPAPQKSVW 120  
Db 457 VRRADRGSVPIVNLKDEVLSFSGQSQLOPGARIFSPDGRDVLHRHPAPQKSVW 516  
QY 121 HGSDFSGRLMESYCTETWRTTGTATGQASLLSGRLLEQKAASCHNSYIVLCIENSPMT 180  
Db 517 HGSDFSGRLMESYCTETWRTTGTATGQASLLSGRLLEQKAASCHNSYIVLCIENSPMT 576

QY 181 SPSK 184  
Db 577 SPSK 580

RESULT 12  
AAW26328  
ID AAW26328 standard; protein; 1288 AA.  
XX AC  
XX AAW26328;  
DT 19-NOV-1997 (first entry)  
XX  
DE Mouse alpha-1 collagen (XVIII).  
XX  
KW Alpha-1 collagen; type XVIII collagen; cartilage degeneration.  
XX  
OS Mus musculus.  
XX  
FH Key  
FH Peptide  
FT 303..308  
FT /label= GXYGX'Y' \_motif  
FT 309..314  
FT /label= GXYGX'Y' \_motif  
FT 315..320  
FT /label= GXYGX'Y' \_motif  
FT 321..326  
FT /label= GXYGX'Y' \_motif  
FT 327..342  
FT /label= GXYGX'Y' \_motif  
FT 343..348  
FT /label= GXYGX'Y' \_motif  
FT 349..354  
FT /label= GXYGX'Y' \_motif  
FT 355..360  
FT /label= GXYGX'Y' \_motif  
FT 361..366  
FT /label= GXYGX'Y' \_motif  
FT 367..372  
FT /label= GXYGX'Y' \_motif  
FT 373..378  
FT /label= GXYGX'Y' \_motif  
FT 379..384  
FT /label= GXYGX'Y' \_motif  
FT 385..390  
FT /label= GXYGX'Y' \_motif  
FT 396..401  
FT /label= GXYGX'Y' \_motif  
FT 402..407  
FT /label= GXYGX'Y' \_motif  
FT 435..440  
FT /label= GXYGX'Y' \_motif  
FT 441..446  
FT /label= GXYGX'Y' \_motif  
FT 447..452  
FT /label= GXYGX'Y' \_motif  
FT 453..458  
FT /label= GXYGX'Y' \_motif  
FT 459..464  
FT /label= GXYGX'Y' \_motif  
FT 470..475  
FT /label= GXYGX'Y' \_motif  
FT 476..481  
FT /label= GXYGX'Y' \_motif  
FT 482..487  
FT /label= GXYGX'Y' \_motif  
FT 488..493  
FT /label= GXYGX'Y' \_motif  
FT 494..499  
FT /label= GXYGX'Y' \_motif  
FT 500..505  
FT /label= GXYGX'Y' \_motif  
FT 506..511  
FT /label= GXYGX'Y' \_motif  
FT Peptide

FT Peptide /label= GXYGX'Y' \_motif  
FT 512. .517  
FT /label= GXYGX'Y' \_motif  
FT 518. .523  
FT /label= GXYGX'Y' \_motif  
FT 524. .529  
FT /label= GXYGX'Y' \_motif  
FT 530. .535  
FT /label= GXYGX'Y' \_motif  
FT 536. .541  
FT /label= GXYGX'Y' \_motif  
FT 542. .547  
FT /label= GXYGX'Y' \_motif  
FT 548. .553  
FT /label= GXYGX'Y' \_motif  
FT 580. .585  
FT /label= GXYGX'Y' \_motif  
FT 586. .591  
FT /label= GXYGX'Y' \_motif  
FT 592. .597  
FT /label= GXYGX'Y' \_motif  
FT 598. .603  
FT /label= GXYGX'Y' \_motif  
FT 604. .609  
FT /label= GXYGX'Y' \_motif  
FT 610. .615  
FT /label= GXYGX'Y' \_motif  
FT 616. .621  
FT /label= GXYGX'Y' \_motif  
FT 622. .627  
FT /label= GXYGX'Y' \_motif  
FT 628. .633  
FT /label= GXYGX'Y' \_motif  
FT 634. .639  
FT /label= GXYGX'Y' \_motif  
FT 640. .665  
FT /label= GXYGX'Y' \_motif  
FT 657. .662  
FT /label= GXYGX'Y' \_motif  
FT 677. .682  
FT /label= GXYGX'Y' \_motif  
FT 683. .688  
FT /label= GXYGX'Y' \_motif  
FT 689. .694  
FT /label= GXYGX'Y' \_motif  
FT 695. .700  
FT /label= GXYGX'Y' \_motif  
FT 707. .712  
FT /label= GXYGX'Y' \_motif  
FT 713. .718  
FT /label= GXYGX'Y' \_motif  
FT 735. .740  
FT /label= GXYGX'Y' \_motif  
FT 741. .746  
FT /label= GXYGX'Y' \_motif  
FT 747. .752  
FT /label= GXYGX'Y' \_motif  
FT 759. .764  
FT /label= GXYGX'Y' \_motif  
FT 765. .770  
FT /label= GXYGX'Y' \_motif  
FT 771. .776  
FT /label= GXYGX'Y' \_motif  
FT 787. .792  
FT /label= GXYGX'Y' \_motif  
FT 793. .798  
FT /label= GXYGX'Y' \_motif  
FT 799. .804  
FT /label= GXYGX'Y' \_motif  
FT 815. .820  
FT /label= GXYGX'Y' \_motif  
FT 821. .826  
FT /label= GXYGX'Y' \_motif

FT Peptide 827. .832  
FT /label= GXYGX'Y' \_motif  
FT 833. .838  
FT /label= GXYGX'Y' \_motif  
FT 839. .844  
FT /label= GXYGX'Y' \_motif  
FT 845. .850  
FT /label= GXYGX'Y' \_motif  
FT 863. .868  
FT /label= GXYGX'Y' \_motif  
FT 869. .874  
FT /label= GXYGX'Y' \_motif  
FT 875. .880  
FT /label= GXYGX'Y' \_motif  
FT 891. .896  
FT /label= GXYGX'Y' \_motif  
FT 897. .902  
FT /label= GXYGX'Y' \_motif  
FT 903. .908  
FT /label= GXYGX'Y' \_motif  
FT 911. .916  
FT /label= GXYGX'Y' \_motif  
FT 917. .922  
FT /label= GXYGX'Y' \_motif  
FT 928. .933  
FT /label= GXYGX'Y' \_motif  
FT 934. .939  
FT /label= GXYGX'Y' \_motif  
FT 956. .961  
FT /label= GXYGX'Y' \_motif  
FT 962. .967  
FT /label= GXYGX'Y' \_motif  
FT 968. .973  
FT /label= GXYGX'Y' \_motif  
FT 1126. .1131  
FT /label= GXYGX'Y' \_motif  
FT 1145. .1150  
FT /label= GXYGX'Y' \_motif  
FT 1193. .1198  
FT /label= GXYGX'Y' \_motif  
XX  
XX US5643783-A.  
XX  
XX PD 01-JUL-1997.  
XX  
XX PF 01-DEC-1993; 93US-00159784.  
XX  
XX PR 01-DEC-1993; 93US-00159784.  
XX  
XX PA (HARD ) HARVARD COLLEGE.  
XX  
XX PI Olsen BR, Oh SP;  
XX  
XX DR WPI; 1997-350247/32.  
XX DR N-PSDB; AAT84485.  
XX  
XX PT Nucleic acid encoding human alpha-1 collagen - for production of  
PT recombinant alpha-1 collagen, for use in the treatment of cartilage  
PT degeneration.  
XX  
XX PS Disclosure; Fig 2; 35pp; English.

Query Match 99.7%; Score 965; DB 2; Length 1288;  
Best Local Similarity 99.5%; Pred No. 5,4e-106;  
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
QY 1 HTHQDFQPVHLVALNTEPLSGMGRGIRGADFCQCFQARAVGLSGTFFAFLSRLQDLYSI 60  
Db 1105 HTHQDFQPVHLVALNTEPLSGMGRGIRGADFCQCFQARAVGLSGTFFAFLSRLQDLYSI 1164  
QY 61 VRRADRGSPVIVNLKDEVLSFSGSOGLOPQGARIFSFQGRDVLRRHPAMPQKSVN 120  
Db 1165 VRRADRGSPVIVNLKDEVLSFSGSOGLOPQGARIFSFQGRDVLRRHPAMPQKSVN 1224

QY	121	HGSDPSGRRLMESYCETWRTTGTGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT	180
Db	1225	HGSDPSGRRLMESYCETWRTTGTGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT	1284
QY	181	SFSK 184	
Db	1285	SFSK 1288	
RESULT 13			
ID	AAV18409		
AC	AAV18409	standard; protein; 184 AA.	
XX			
XX			
DT	24-AUG-1999	(first entry)	
XX			
DE	Endostatin protein sequence.		
XX			
KW	EM1; anti-angiogenic peptide; endostatin; angiogenesis-dependent cancer;		
KW	benign tumour; rheumatoid arthritis; psoriasis; ocular angiogenesis;		
KW	Osler-Webber Syndrome; myocardial angiogenesis; angiofibroma; cancer;		
KW	plaque neovascularisation; telangiectasia; atherosclerosis; scleroderma;		
KW	dialysis graft vascular access stenosis; renal cancer; therapy.		
XX			
OS	Mus sp.		
XX			
PN	WO9929855-A1.		
XX			
PD	17-JUN-1999.		
XX			
PF	08-DEC-1998; 98WO-US026057.		
XX			
PR	08-DEC-1997; 97US-0067888F.		
PR	22-APR-1998; 98US-0082663P.		
PR	16-NOV-1998; 98US-0108536P.		
XX			
XX	(BETH-) BETH ISRAEL DEACONESS MEDICAL CENT.		
PA			
XX			
PI	Sukhatme VP;		
XX			
DR	WPI; 1999-385604/32.		
DR	N-PSDB; AAX79949.		
XX			
PT	Mutant endostatin having anti-angiogenic activity.		
XX			
PS	Claim 31; Fig 2; 105pp; English.		
XX			
CC	This sequence is the mouse endostatin. The invention relates to a the		
CC	mutant endostatin (EM) which has anti-angiogenic activity, and is		
CC	designated EM1. Compositions comprising EM1 or fusion proteins comprising		
CC	EM1, are useful for treating diseases characterised by angiogenic		
CC	activity, such as angiogenesis-dependent cancers, benign tumours,		
CC	rheumatoid arthritis, psoriasis, ocular angiogenesis, Osler-Webber		
CC	Syndrome, myocardial angiogenesis, plaque neovascularisation,		
CC	telangiectasia, haemophilic joints, angiofibroma, wound granulation,		
CC	intestinal adhesions, atherosclerosis, scleroderma, hypertrophic scars,		
CC	cat scratch disease, Helicobacter pylori ulcers, dialysis graft vascular		
CC	access stenosis, contraception and obesity. In particular, the diseases		
CC	treatable by EM1 comprise cancer, especially renal cancer. The methods		
CC	provide a means for introducing EM1 into mammalian cells via gene		
CC	therapy, for production of EM1 via recombinant means, as well as		
CC	recombinant production of the EM1 protein. EM1 performs as well or better		
CC	than whole endostatin. Use of EM1 is advantageous for treatment of		
CC	angiogenic diseases in that increasingly smaller peptide are more potent		
CC	on a weight basis, and may be able to better penetrate tissues		
XX			
SQ	Sequence 184 AA;		
Query Match 99.5%; Score 963; DB 2; Length 184;			
Best Local Similarity 99.5%; Pred. No. 5.3e-107;			
Matches 183; Conservative 0; Mismatches 1; Indels 0; Gaps 0;			

QY	1	HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQOQARAVGLSGTTPRAFLSSRLQDLYSI	60
Db	1	HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQOQARAVGLSGTTPRAFLSSRLQDLYSI	60
QY	61	VRRADRGSPVIVNLKDEVLSFSGSWDSLFSGSQGLOQPGARIFSPDGRDVLRHAPWPKSVW	120
Db	61	VRRADRGSPVIVNLKDEVLSFSGSWDSLFSGSQGLOQPGARIFSPDGRDVLRHAPWPKSVW	120
QY	121	HGSDPSGRRLMESYCETWRTTGTGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT	180
Db	121	HGSDPSGRRLMESYCETWRTTGTGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT	180
QY	181	SFSK 184	
Db	181	SFSK 184	
RESULT 14			
AAW92297			
ID	AAW92297	standard; peptide; 1288 AA.	
XX			
AC	AAW92297;		
XX			
DT	28-APR-1999	(first entry)	
XX			
DE	Mouse alpha-1 (XVIII) collagen chain common sequence MO18(common)28.		
XX			
KW	Human; type XVIII collagen; liver disease; cirrhosis; detection;		
KW	hepatocellular carcinoma; diagnosis.		
XX			
OS	Mus sp.		
XX			
PN	WO9856399-A1.		
XX			
PD	17-DEC-1998.		
XX			
PF	12-JUN-1998; 98WO-US012327.		
XX			
PR	12-JUN-1997; 97US-0049369P.		
XX			
PA	(FIBR-) FIBROGEN INC.		
PA	(FIFI-) ACAD FINLAND.		
PA	(INRM) INST NAT SANTE & RECH MEDICALE.		
XX			
PI	Phlajaniemi T, Rehn M, Clement B;		
XX			
DR	WPI; 1999-070292/06.		
XX			
PT	Diagnosis and monitoring of liver disease by measuring collagen type		
PT	XVIII levels - with elevated levels indicative of disease, especially		
PT	cirrhosis or hepatocellular carcinoma.		
XX			
XX	Example 6; Fig 8; 56pp; English.		
CC	A method has been developed for the detecting liver disease. The method		
CC	comprises: (a) reacting a patient sample with antibodies (Ab) specific		
CC	for collagen type XVIII (Col18); (b) measuring the amount of Ab-antigen		
CC	complex (C) formed as indicator of the amount of Col18 present; (c)		
CC	similar analysis of a non-diseased control; and (d) comparing the amounts		
CC	of Col18 in the two samples to detect presence or progression of disease.		
CC	Elevated levels of Col18 are: (i) indicative of disease, specifically		
CC	cirrhosis; and (ii) predictive of the prognosis of disease, specifically		
CC	hepatocellular carcinoma (there is a relationship between Col18 mRNA		
CC	levels and tumour size and necrosis, and survival times are significantly		
CC	higher in patients with higher Col18 levels). The method provides non-		
CC	invasive, early and accurate diagnosis of liver disease. The present		
CC	sequence represents the sequence common to mouse alpha-1 (XVIII) collagen		
CC	chain from the present invention		
XX			
SQ	Sequence 1288 AA;		
Query Match 99.2%; Score 960; DB 2; Length 1288;			

Best Local Similarity 99.5%; Pred. No. 2.2e-105;  
Matches 182; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
Db 1106 HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 1165  
QY 61 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSFQGRDVLHRHPAWPKSVW 120  
Db 1166 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSFQGRDVLHRHPAWPKSVW 1225  
QY 121 HGSDFSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180  
Db 1226 HGSDFSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 1285  
QY 181 SPS 183  
Db 1286 SPS 1288

## RESULT 15

AAV25114  
ID AAV25114 standard; protein; 684 AA.

XX AAV25114;

DT 25-AUG-1999 (first entry)

DE Mouse alpha1 (XVIII) collagen protein.

XX Alpha(XVIII) collagen; mimetic; endostatin; atomic coordinate; library;  
KW anti-angiogenic; heparin binding domain; receptor binding domain; mimic;  
KW alpha-helix A domain; carbohydrate recognition domain; CRD domain;  
KW treatment; angiogenesis; tumour; murine.

OS Mus sp.

PN WO9931616-A1.

PD 24-JUN-1999.

PF 16-DEC-1998; 98WO-US026783.

PR 16-DEC-1997; 97US-0069727P.

XX (HARD ) HARVARD COLLEGE.

PI Olsen BR, Hohenester E, Timpl R, Sasaki T;

DR WPI; 1999-395243/33.

PT Identifying mimetics of mammalian endostatin.

PS Disclosure; Fig 5A-C; 75pp; English.

CC This invention describes a novel method for identifying mimetics of  
CC mammalian endostatin. The method comprises identifying a compound having  
CC atomic coordinates with non-trivial similarity to selected coordinates of  
CC atoms of a mammalian endostatin involves (a) providing a library of  
CC atomic coordinates of compounds in a library of candidate compounds, (b)  
CC comparing the library of atomic coordinates to the selected coordinates  
CC of a mammalian endostatin and (c) selecting from the library at least one  
CC candidate compound on the basis of selection criteria which include  
CC similarities between the atomic coordinates of the selected candidate  
CC compound and the atomic coordinates of the mammalian endostatin. The  
CC invention also describes the use of an anti-angiogenic fragment of  
CC endostatin comprising a domain selected from a heparin binding domain, a  
CC receptor binding domain, and exposed on alpha-helix A domain, and a  
CC carbohydrate recognition domain (CRD) domain. The methods can be used for  
CC designing and selecting endostatin mimics. The compounds identified can  
CC be used for treating undesired angiogenesis, e.g. tumours. This sequence  
CC represents mouse alpha1(XVIII) collagen which is used in the description  
CC of the method

XX SQ Sequence 684 AA;

Query Match 98.1%; Score 950; DB 2; Length 684;  
Best Local Similarity 99.4%; Pred. No. 1.4e-104;  
Matches 180; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 60  
Db 502 HTHQDFQPVHLVALNTPLSGMGRGIRGADFCFQQAARAVGLSGTFRFLSSRLQDLYSI 561  
QY 61 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSFQGRDVLHRHPAWPKSVW 120  
Db 562 VRRADRGSPVPIVNLKDEVLSFSGSQQLQPGARIFSFQGRDVLHRHPAWPKSVW 621  
QY 121 HGSDFSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 180  
Db 622 HGSDFSGRRLMESYCETWRTTGTGATGQASSLLSGRLLEQKAACHNSYIVLCIENSFMT 681  
QY 181 S 181  
Db 682 S 682

Search completed: August 31, 2004, 19:55:23  
Job time : 124 secs